

As the art rejections have also been overcome (as noted in the Interview Summary) and all other rejections overcome as discussed below, it is believed that this case is now in condition for allowance.

The rejection of claim 24 for indefiniteness has been overcome by removing the word “based” from line 6 of the claim. Thus, the claim now reads in pertinent part as follows: “in the visual image to produce the final dataset.” It is believed that this phrase is sufficiently definite to overcome the rejection.

Independent claims 22 and 29, as well as a number of claims dependent thereon, were rejected as being obvious over the ‘243 patent to Andreiko et al. Such rejections are traversed in part and overcome in part.

With respect to independent claim 22, the Examiner argues that “Andreiko shows a computer method including receiving initial data and generating final positions through calculations and teaches calculating in several steps of movements, col. 25, lines 38-67, and col. 26, lines 1-55. These calculations inherently provide a set of intermediate positions and inherently use the previous data to calculate the next step. That this data can be provided as sets of intermediate data is an obvious matter of choice . . .” Applicants respectfully disagree.

Applicants do not believe that Andreiko et al. teaches producing a “plurality of successive digital data sets . . . [representing] . . . a series of successive tooth arrangements progressing from the initial tooth arrangement to the final tooth arrangement” as required by claim 22. While Andreiko et al. does show a computer method for providing a “finish position of the mandibular teeth,” there is no teaching that such determination is accomplished by first obtaining initial and final digital data sets representing initial and final tooth arrangements and thereafter producing the intermediate digital data sets based on the initial and final data sets, typically by interpolation. Indeed, the ‘243 patent teaches the opposite. After obtaining an initial “mathematical construction” of the mandibular occlusion, the mathematical model is redefined in a step-by-step procedure to reach the finish position. There is no teaching in the patent, however, that the step-wise manipulations in fact produce intermediate data sets representing successive tooth arrangements. More importantly, once the finished position is



achieved, the '243 patent does not rely on it to determine the intermediate digital data sets as is required by claim 22 in the present application.

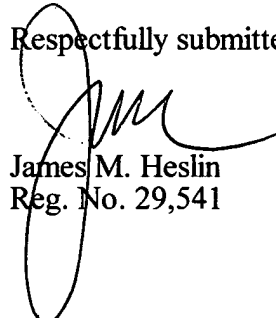
In an effort to even further distinguish the teachings of the '243 patent, claim 22 has been amended to clarify that both the initial and the final data sets are provided prior to producing the plurality of successive (intermediate) digital data sets.

Independent claim 29 has been amended similarly to independent claim 22 in that it sets forth that the successive (intermediate) digital data sets are produced based on both the initial and final digital data sets relating to the initial and final tooth positions. Claim 29 further sets forth that appliances based on at least some of the digital data sets are also fabricated. Thus, it is believed that independent claim 29, as well as all claims dependent thereon, distinguish over the teachings of the '243 patent and should therefore be allowable.

For these reasons, Applicants believe that independent claims 22 and 29, as well as claims dependent thereon, clearly distinguish over the teachings of the '243 patent and should therefore be allowed together with all claims dependent thereon. Based on the above amendments and remarks, the Examiner's respectfully requested to pass the application to issue at an early date.

If for any reason the Examiner believes that a telephone conference would in any way expedite prosecution of the subject application, the Examiner is invited to telephone the undersigned at 408-470-1299.

Respectfully submitted,


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